

SEQUENCE LISTING

<110> NOVARTIS AG
NOVARTIS PHARMA GMBH

<120> OCULAR GENE THERAPY

<130> 116566-010

<140>
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<150> PCT/EP03/09497
<151> 2003-08-27

<150> 60/406,470
<151> 2002-08-28

<160> 25

<170> PatentIn Ver. 3.3

<210> 1
<211> 183
<212> PRT
<213> Homo sapiens

<400> 1

His Ser His Arg Asp Phe Gln Pro Val Leu His Leu Val Ala Leu Asn
1 5 10 15

Ser Pro Leu Ser Gly Gly Met Arg Gly Ile Arg Gly Ala Asp Phe Gln
20 25 30

Cys Phe Gln Gln Ala Arg Ala Val Gly Leu Ala Gly Thr Phe Arg Ala
35 40 45

Phe Leu Ser Ser Arg Leu Gln Asp Leu Tyr Ser Ile Val Arg Arg Ala
50 55 60

Asp Arg Ala Ala Val Pro Ile Val Asn Leu Lys Asp Glu Leu Leu Phe
65 70 75 80

Pro Ser Trp Glu Ala Leu Phe Ser Gly Ser Glu Gly Pro Leu Lys Pro
85 90 95

Gly Ala Arg Ile Phe Ser Phe Asp Gly Lys Asp Val Leu Arg His Pro
100 105 110

Thr Trp Pro Gln Lys Ser Val Trp His Gly Ser Asp Pro Asn Gly Arg
115 120 125

Arg Leu Thr Glu Ser Tyr Cys Glu Thr Trp Arg Thr Glu Ala Pro Ser
130 135 140

Ala Thr Gly Gln Ala Ser Ser Leu Leu Gly Gly Arg Leu Leu Gly Gln
145 150 155 160

Ser Ala Ala Ser Cys His His Ala Tyr Ile Val Leu Cys Ile Glu Asn
165 170 175

Ser Phe Met Thr Ala Ser Lys
180

<210> 2
<211> 551
<212> DNA
<213> Homo sapiens

<400> 2
acagccaccg cgacttccag ccgggtgctcc acctgggtgc gctcaacagc cccctgttag 60
gcggcatcg gggcatccgc ggggcccact tccagtgcct ccaggcaggcg cggggccgtgg 120
ggctggcggg caccttcgc gccttcctgt cctcgcgcct gcaggacctg tacagcatcg 180
tgcgcgtgc cgaccgcgc ggcgtgcccc tcgtcaacct caaggacgag ctgctgtttc 240
ccagctggga ggctctgttc tcaggctctg agggtccgct gaagcccccggg gcacgcacatct 300
tctcccttga cggcaaggac gtcctgaggc accccacctg gccccagaag agcgtgtggc 360
atggctcgga ccccaacggg cgcaaggctga ccgagagcta ctgtgagacg tggccggacgg 420
aggctccctc ggccacgggc caggccctc ctgtgctggg gggcaggctc ctggggcaga 480
gtgccgcgag ctgccatcac gcctacatcg tgctctgcat tgagaacagc ttcatgactg 540
cctccaagta g 551

<210> 3
<211> 207
<212> PRT
<213> Mus musculus

<400> 3
Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Asp Ala Ala His Thr His Gln Asp Phe Gln Pro Val
20 25 30

Leu His Leu Val Ala Leu Asn Thr Pro Leu Ser Gly Gly Met Arg Gly
35 40 45

Ile Arg Gly Ala Asp Phe Gln Cys Phe Gln Gln Ala Arg Ala Val Gly
50 55 60

Leu Ser Gly Thr Phe Arg Ala Phe Leu Ser Ser Arg Leu Gln Asp Leu
65 70 75 80

Tyr Ser Ile Val Arg Arg Ala Asp Arg Gly Ser Val Pro Ile Val Asn
85 90 95

Leu Lys Asp Glu Val Leu Ser Pro Ser Trp Asp Ser Leu Phe Ser Gly
100 105 110

Ser Gln Gly Gln Leu Gln Pro Gly Ala Arg Ile Phe Ser Phe Asp Gly
115 120 125

Arg Asp Val Leu Arg His Pro Ala Trp Pro Gln Lys Ser Val Trp His

130

135

140

Gly Ser Asp Pro Ser Gly Arg Arg Leu Met Glu Ser Tyr Cys Glu Thr
145 150 155 160

Trp Arg Thr Glu Thr Thr Gly Ala Thr Gly Gln Ala Ser Ser Leu Leu
165 170 175

Ser Gly Arg Leu Leu Glu Gln Lys Ala Ala Ser Cys His Asn Ser Tyr
180 185 190

Ile Val Leu Cys Ile Glu Asn Ser Phe Met Thr Ser Phe Ser Lys
195 200 205

<210> 4

<211> 624

<212> DNA

<213> Mus musculus

<400> 4

atggagacag acacactcct gctatggta ctgctgctct gggttccagg ttccactgg 60
gacgcggccc atactcatca ggactttcag ccagtgcctcc acctggtgcc actgaacacc 120
ccccgtctg gaggcatgcg tggtatccgt ggagcagatt tccagtgcct ccagcaagcc 180
cgagccgtgg ggctgtcggg cacctccgg gctttccgt cctcttaggt gcaggatctc 240
tatagcatcg tgcggcgtgc tgaccggggg tctgtgccc tcgtcaacct gaaggacgag 300
gtgctatctc ccagctggga ctccctgttt tctggctccc agggtcaagt gcaaccggg 360
gcccgcattt tttctttga cgccagagat gtcctgagac acccagcctg gccgcagaag 420
agctatggc acggctcggg ccccagtggg cggagctga tggagagttt ctgtgagaca 480
tggcgaactg aaactactgg ggctacaggt caggcctcct ccctgctgtc aggcaggctc 540
ctgaaacaga aagctgcgag ctgccacaaac agctacatcg tcctgtgcat tgagaatacg 600
ttcatgacct ctttctccaa atag 624

<210> 5

<211> 8

<212> PRT

<213> Homo sapiens

<400> 5

Ala Pro Gln Gln Glu Ala Leu Ala

1

5

<210> 6

<211> 38

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 6

actggtgacg cggccatac tcatcaggac tttcagcc

38

<210> 7
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 7
aaggctatc gatctagctg gcagaggcct at 32

<210> 8
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 8
cactgcttac tggcttatcg 20

<210> 9
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 9
ctgatgagta tggccgcgt caccagtgg 29

<210> 10
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 10
aaggctatc gatctagctg gcagaggcct at 32

<210> 11
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 11
gatctctaga ccaccatgca tactcatcag gactt 35

<210> 12
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 12
actggagaaa gaggtttatc tagctactag 30

<210> 13
<211> 18
<212> PRT
<213> Adenovirus

<400> 13
Met Arg Tyr Met Ile Leu Gly Leu Leu Ala Leu Ala Ala Val Cys Ser
1 5 10 15

Ala Ala

<210> 14
<211> 96
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 14
gatctctaga ccaccatgag gtacatgatt ttaggcttgc tcgcccttgc ggcagtctgc 60
agcccgcccc atactcatac tcatcaggac tttcag 96

<210> 15
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 15
atcgatcata ctcatcagga ctttcagcc 29

<210> 16
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 16
gcggccgcct atttggagaa agaggtcat 29

<210> 17
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 17
ttttttttc agtgtaaaag gtc 23

<210> 18
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 18
cagatgacat cctggccag 19

<210> 19
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 19
ctatacagga aagtatggca gc 22

<210> 20

<211> 118
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 20
gccaagcttc catgagggcc tggatcttct ttctcccttg cctggccggg agggctctgg 60
cagccccctca gcaagaagcg ctcgctcaca gccaccgcga cttccagccg gtgctcca 118

<210> 21
<211> 123
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic oligonucleotide

<400> 21
ccagggtggag caccggctgg aagtgcgcgt ggctgtgagc gagcgcttct tgctgagggg 60
ctgccagagc cctccggcc aggcaaagga gaaagaagat ccaggccctc atggaagctt 120
ggc 123

<210> 22
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 22
gcgcatgtcg acagaatatg ggccaaac 28

<210> 23
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 23
gcgctactgc agagctaattg agctacac 28

<210> 24
<211> 27
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 24

ccggctagct taagggtggc gaccggt

27

<210> 25

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 25

gtttcgaacg cgttagcgcc aaccctc

27